

A New Species of *Apotomopterus* and a New Subspecies of *Cychrus* (Coleoptera, Carabidae) from China

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Abstract Two new taxa of the genera *Carabus* (s. lat.) and *Cychrus* are described from China under the names of *Carabus* (*Apotomopterus*) *maolanensis* sp. nov. from southeastern Guizhou and *Cychrus bispinosus shennongding* subsp. nov. from western Hubei.

Recently, we had an opportunity to examine a short series of carabine specimens collected by the staff of the Chinese Academy of Sciences from such areas as Beijing, Hubei and Guizhou. Of some interesting forms included in the same series, a new species belonging to the subgenus *Apotomopterus* of the genus *Carabus* (s. lat.) and a new subspecies of *Cychrus bispinosus* will be described in the present paper.

The present study is a part of the collaborative research project made between JT Biohistory Research Hall (BRH) (Takatsuki, Osaka) and the Institute of Zoology, Chinese Academy of Sciences (CAS) (Beijing), and is supported in part by two scientific programs No. KZ952–S1–106 and No. STZ97–1–03 of CAS and a major program No. 39893360 of the National Natural Science Foundation of China (NSFC).

1. *Carabus (Apotomopterus) maolanensis* IMURA, ZHOU *et al.* sp. nov.

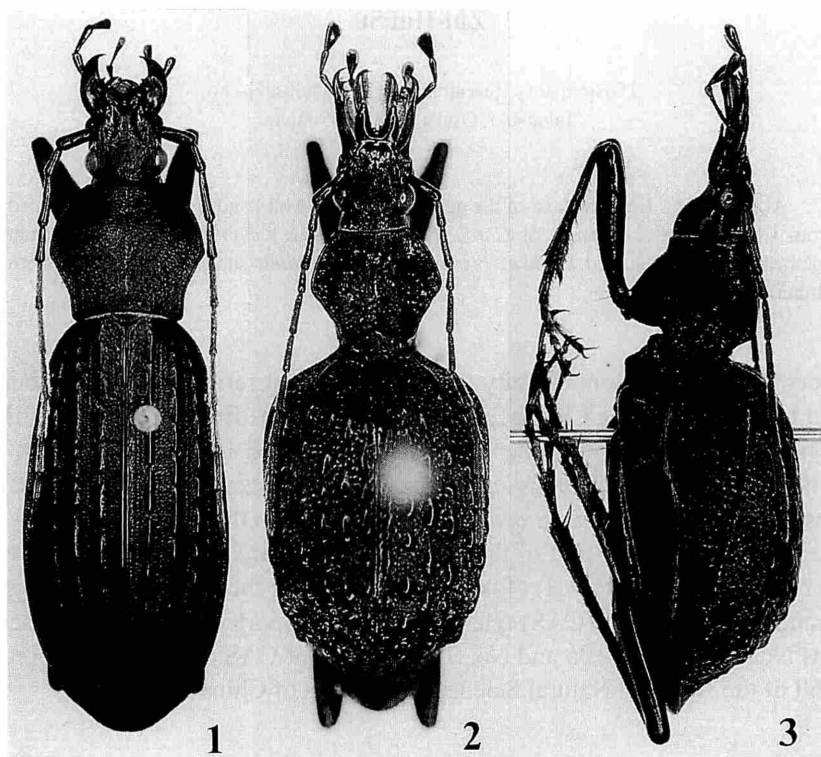
(Figs. 1, 5)

Length: 40.9 mm (including mandibles).

Closely similar to *C. (A.) breuningianus* LE MOULT, from which the present new species differs, in external morphology, only in a little weaker rugae on vertex, a little shorter hind angles of pronotum, more weakly wrinkled pronotal disc, shallower basal foveae of pronotum, and a little less elongate elytra with more prominent secondary and tertiary intervals, but evidently different in configuration of male genitalia as described below.

Aedeagus a little shorter, above all both in median and apical portions; apical lobe much shorter and robuster, not sinuate towards apex in lateral view, and hardly concave right laterad. Spinula larger and thicker, with the outer margin not emarginate but roundly protruded.

Holotype: ♂, Yaogu [尧古] in the Maolan [茂兰] Nature Reserve of Libo [荔波] Xian, southeastern Guizhou, South China, 15–VIII–1997, in coll. Institute of Zoology,



Figs. 1–3. — 1, *Carabus (Apotomopterus) maolanensis* sp. nov., from Maolan in SE. Guizhou (holotype, ♂); 2–3, *Cychrus bispinosus shennongding* subsp. nov., from near the peak Shennongding on the Dashennongjia Massif in W. Hubei (holotype, ♀; 2, dorsal view; 3, left lateral view).

Chinese Academy of Sciences, Beijing.

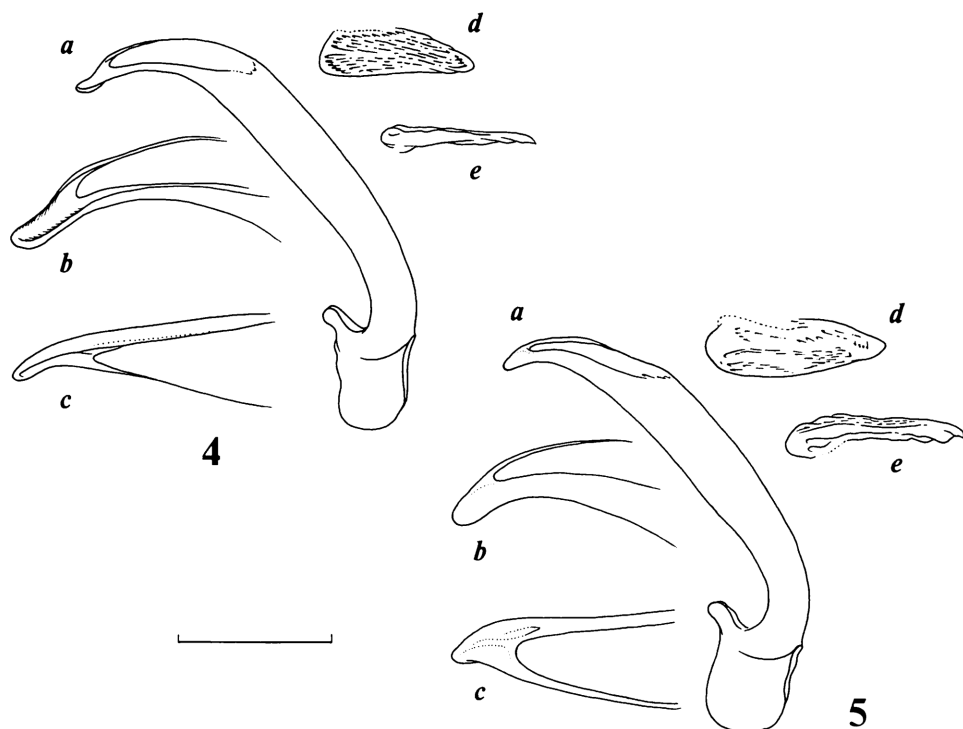
Notes. Although a little different in details, the single known specimen of *Apotomopterus* from Maolan is almost identical with *C. (A.) breuningianus* in external morphology. It is, however, obviously different from the latter in configuration of the male genitalia, as shown in Figs. 4–5 which are drawn under the same scale. Noticeable is that the spinula of *maolanensis* nov., the aedeagus of which is smaller of the two, appear larger than that of *breuningianus*. The much robuster and differently shaped apical lobe of aedeagus is also unique and diagnostic. These peculiarities are evidently of specific importance, not subspecific, even if the external features of the beetles are closely similar to each other.

2. *Cychrus bispinosus shennongding* IMURA, ZHOU et SU, subsp. nov.

(Figs. 2–3)

Length: 17.0 mm (including mandibles).

Most closely allied to subsp. *dabashanensis* IMURA of the Daba Shan Mts. in



Figs. 4–5. Male genital organ of *Carabus (Apotomopterus)* spp. — 4, *C. (A.) breuningianus* from Mt. Daming Shan, Guangxi; 5, *C. (A.) maolanensis* nov. from Maolan, Guizhou; a, aedeagus in right lateral view; b, apical part of aedeagus in right lateral view; c, ditto in dorsal view; d, spinula in dorsal view; e, ditto in lateral view. Scale: 4 mm for a, 2 mm for b–e.

northeastern Sichuan, but differs from that form in the following respects: 1) a little smaller in size; 2) antennae shorter, barely extending to the middle of elytra in female; 3) pronotum wider than long, ca. 1.1 times as wide as long, with the widest parts of lateral sides angulate and far more strongly projected laterad, hind angles less strongly protruded dorsad, and the disc more clearly punctate; 4) elytra with the shoulders more effaced and the secondary callosities more strongly prominent.

Type series. Holotype: ♀, alpine meadow near the peak Shennongding [神农顶], 2,890 m alt., on the Dashennongjia [大神农架] Massif, in Shennongjia Linqu, western Hubei, Central China, 26–VII~9–VIII–1998, H.-Z. ZHOU leg., in coll. Institute of Zoology, Chinese Academy of Sciences, Beijing. Paratype: 1 ♀, same data as for the holotype.

要 約

井村有希・周 红章・蘇 智慧：中国産トゲオサムシの1新種とセダカオサムシの1新亜種。—— 中国贵州省南東部荔波県の茂兰自然保護区から、プロイニンゲトゲオサムシに近縁だが♂交尾器形態のいちじるしく異なる新種，マオラントゲオサムシ *Carabus (Apotomopterus) maolanensis* nov.を記載した。また，湖北省神农架の神农顶から，トゲムネセダカオサムシの新亜種，*Cychrus bispinosus shennongding* nov.を記載した。

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